

REMARKS

Claims 14-19 are now pending. Favorable reconsideration is respectfully requested.

The present invention relates to a transgenic potato, wherein said potato contains a genetic construct being able to express a GDH gene, and the total weight of tuber parts of the potato exhibits an increase compared to a total weight of tuber parts of an untransformed potato cultured under the same conditions. See Claim 14.

The rejection of Claims 14-19 under 35 U.S.C. §103(a) over Lightfoot et al. in view of de Castro Silva Filho et al. and An et al. is respectfully traversed.

Lightfoot et al. describe that plant metabolism in corn and tobacco can be altered by transformation with a highly assimilatory glutamate dehydrogenase gene. The reference is completely silent with respect to increased weight of potato tubers.

de Castro Silva Filho et al. describe the presequence of the mitochondrial F1-ATPase beta-subunit which was able to direct transport of CAT genes to mitochondria. The reference is completely silent with respect to increased weight of potato tubers.

An et al. describe a general method of producing transgenic tomato and potato. The reference is also completely silent with respect to increased weight of potato tubers.

The cited references, taken in combination, fail to suggest the claimed transgenic potato.

The fact that the total weight of tuber parts of the claimed transgenic potato exhibits an increase compared to a total weight of tuber parts of an untransformed potato cultured under the same conditions would not have been predicted from the cited references. While it may be the case that expressing GDH in a potato gene leads to an increase in the amino acid contents of the tubers and hence to a higher total weight, that result could not be predicted from the cited references. The Office cannot simply dismiss the result as “inherent” when none of the cited references disclose the claimed transgenic potato.

Lightfoot et al. is directed to transgenic corn and tobacco. Potato is a very different type of plant as compared to corn and tobacco. The tubers of potato function as storage organs. Corn and tobacco do not have similar storage organs. In particular, the roots of corn and tobacco are not storage organs because they do not accumulate protein, carbohydrates, etc.

Since Lightfoot et al. does not even mention potatoes at all, the reference is, of course, silent with respect to increasing the weight of potato tubers. de Castro Silva Filho et al. and An et al. are also silent with respect to increasing tuber weight via transgenesis as claimed. There is simply no suggestion in any of the references considered individually or in combination that expressing a GDH gene in a potato would lead to increased tuber weight. Accordingly, the claimed tuber is not suggested by the combination Lightfoot et al., de Castro Silva Filho et al. and An et al. Withdrawal of this ground of rejection is respectfully requested.

The rejection of the claims under 35 U.S.C. §112, second paragraph, is believed to be obviated by the amendment submitted above. Therefore, the claims are believed to be definite within the meaning of 35 U.S.C. §112, second paragraph. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The obviousness-type double patenting rejection over U.S. patent No. 6,969,782 is obviated by the executed Terminal Disclaimer submitted herewith. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The objections to the specification and to the claims are believed to be obviated by the amendment submitted above. Accordingly, withdrawal of the objections is respectfully requested.

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Applicants submit that the present application is in condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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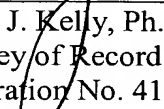
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